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PART I. INTRODUCTION



N. C. General Statute 130A-309.09A requires each unit of local government, either individually or in cooperation with other units of local government, to develop a 10 year comprehensive solid waste management plan to be updated every three years. The Lee County planning area consisting of Lee County's unincorporated areas, the City of Sanford and the Town of Broadway, has prepared this update to its Solid Waste Management Plan originally submitted in 1997 and updated in 2000, 2003 and 2006. This fourth update covering the period

from July 1, 2009 – June 30, 2019 outlines an integrated strategy for the management of the planning area's solid wastes. This strategy was designed with the following in mind:

- Protecting the general health and welfare of the citizens of Lee County;
- Meeting Lee County's solid waste needs by providing environmentally and fiscally responsible waste collection, recycling and disposal services;
- Showing Lee County's compliance with the State's comprehensive solid waste management plan; and,
- Showing Lee County's good faith effort to achieve the State's waste reduction goal of 40%.

This document clearly shows Lee County's commitment to meeting the constantly changing solid waste conditions facing North Carolina. The Lee County planning area believes that this update outlines the first step in meeting these challenges through a resource management infrastructure designed to reduce its reliance on land disposal and to promote sustainable behavior.

PART II. THE PLANNING PROCESS AND PUBLIC PARTICIPATION

This document was prepared and written by representatives of the Lee County planning area. These representatives included Russell L. Spivey, Lee County Director of General Services, Joseph T. Cherry, Lee County Solid Waste Superintendent, Marc Clark, Engineering Technician, Larry Craig, City of Sanford Solid Waste Superintendent and Robert W. Stevens, Town of Broadway Manager.

A public hearing, attended by approximately 16 people, was held on July 20, 2009 at the Lee County Government Center. During this meeting the plan was discussed, and public comments were solicited and addressed. Prior to the hearing the public was invited to review the draft update which was placed in the Lee County Public Library, Lee County

Government Center, City of Sanford Public Works Department, and the Town of Broadway Town Hall.

The Update was approved by the Lee County Board of Commissioners following the public hearing on July 20, 2009. The City of Sanford and Town of Broadway adopted the update on July 21, 2009 and July 27, 2009 respectively.

A copy of the final plan update will be available to the public on the County's website www.leecountync.gov and/or a hard copy provided upon request.

PART III. THE PLANNING AREA

This document covers the geographic area formally known as Lee County, including the City of Sanford and the Town of Broadway. Lee County is 257.2 square miles located in the geographic center of North Carolina and has a population of 58,709. As shown in Table 2, the population of Lee County is expected to increase by 20% over the next 10 years.

TABLE 2: ESTIMATED POPULATION GROWTH 2009-19

Area	Jul. 2009	Jul. 2019	Change	% +/-
UNINCORPORATED AREAS	29,172	35,123	5,951	+20%
CITY OF SANFORD	28,398	34,191	5,793	+20%
TOWN OF BROADWAY	1,139	1,371	232	+20%
TOTAL	58,709	70,685	11,976	+20%

Source: NC Office of State Budget and Management

Lee County is rich in industrial diversity, has a solid retail base and an excellent transportation network including an airport. Land use includes residential, agricultural, commercial, institutional, light industrial, heavy industrial and green space. Waste generation, including recyclable and compostable materials, by sector is summarized in Table 3.

TABLE 3: PLANNING AREA'S ESTIMATED WASTE GENERATION BY SECTOR

Sector	Tonnage*	% of Waste Stream
Residential	34,425	34%
Commercial	24,973	25%
Industrial	39,655	40%
Institutional	1,414	1%
TOTAL	100,467	100%

Source: Planning Area Records for FY 2007-08

*Includes wastes diverted from landfills.

PART IV. PROGRAM PLANNING ELEMENTS

The following planning element narratives outline an integrated strategy designed to meet the planning area's adjusted waste reduction goal of 10% by FY 2018-19.

A. REDUCTION ELEMENT

Residential

Current Programs:

Historically, waste reduction programs sponsored by the planning unit have included the Master Waste Manager workshop, Enviroshopping workshop, junk mail reduction and public presentations designed to promote source reduction and detoxification of the waste stream. The planning area continues to promote junk mail reduction and provide presentations on source reduction methods upon request.

Assessment:

In recent years the Lee County planning area has dedicated its limited resources to the expansion of recycling opportunities instead of residential waste prevention or source reduction strategies. However, the planning area recognizes that to meet its waste reduction goals it must make a commitment to the implementation of programs designed to discourage waste generation.

Intended Actions:

The Lee County planning area realizes that in order to affect any substantial progress toward its waste reduction goals, greater efforts must be made to promote residential source reduction opportunities. This initiative will include the following actions:

- Continue current efforts including public presentations and promotion of junk mail reduction. The reduction and recycling (see Section C. Recycling and Reuse Element) of junk mail has the potential to reduce or divert up to 180 tons from the landfill.

- Follow up previous backyard composting efforts with additional workshops and compost bin sales. Backyard composting can potentially reduce waste by up to 350 lbs. per household annually.
- Evaluate the feasibility of unit based pricing, more commonly known as Pay-As-You-Throw (PAYT), as a waste reduction strategy. The theory being to provide a financial incentive for convenience center users to minimize waste generation and maximize reduction, reuse and recycling. Communities that have adopted PAYT programs have reduced their waste by 14% - 17% in the first year.

Commercial-Industrial-Institutional (C-I-I)

Current Programs and Assessment:

Many of the planning areas' industrial facilities have taken leadership roles in the implementation of environmentally responsible policies and procedures. These companies have found that in many cases simple industrial process changes have resulted not only in reducing waste, but in substantial cost savings. These companies include, but are not necessarily limited to Wyeth Biotech, Caterpillar, Moen Inc., Pentair Water Pool and Spa, and Coty.

Intended Actions:

Lee County Government intends to increase its commitment to waste reduction through source reduction and waste prevention by evaluating its own operations in an effort to implement enhanced waste management strategies and programs. In July, 2006, the County formed the *Waste Reduction and Recycling Committee* of county employees brought together to develop and implement efficient and effective programs and practices that support reduction, reuse, recycling, recycled content purchasing. The Committee plans to launch an internal waste reduction and recycling initiative to coincide with America Recycles Day 2009.

B. COLLECTION ELEMENT

Residential

Unincorporated Areas

Current Program:

The 12,479 households located in Lee County's unincorporated areas choose one of two available options to meet their solid waste collection needs: drop-off sites or curbside collection through a contract with a licensed private waste hauler.

Drop-Off



Lee County owns and operates six solid waste drop-off facilities commonly known as “convenience centers”. Households, churches and home-based businesses located within the unincorporated areas of Lee County are authorized to use the convenience centers for their solid waste and recycling needs. 79% (9,859) of the “unincorporated households” rely on the convenience centers for the collection of their bagged garbage, bulky

trash and various recyclable materials. An estimated 5,097 tons of garbage and trash are collected through these “centers” annually at a cost to the county of \$333,843.00. This program is funded by an \$80.00 annual household fee.

Curbside Collection

The *Lee County Solid Waste Ordinance* prohibits any person from engaging in the business of solid waste collection except under a license issued by the county. 21% (2,620) of the households within the unincorporated areas utilize the services of the 8 licensed waste haulers currently operating within Lee County. These haulers collect an estimated 11,041 tons of residential waste annually according to a private agreement with participating homeowners.

Assessment:

The current methods of waste collection available to the residents of Lee County's unincorporated areas meet their needs at the present time.

Intended Actions:

There are no actions or changes planned regarding the collection of residential msw within the unincorporated areas of Lee County during this planning period.

City of Sanford

Current Programs:

The City of Sanford collects residential solid waste through a contract with Waste Management of the Carolinas, Inc. The City provides curbside service once weekly for garbage and recycling for 8,700 residential collections. The garbage is carried to a transfer station and transported to landfills outside of the planning area as outlined in Part IV Section F. Recyclables are transported to Waste Management's Recycle America Material Recovery Facility in Raleigh, North Carolina. The City renegotiated its solid waste contract in February, 2008 for an additional five (5) year period starting on July 1, 2008 and ending June 30, 2013.



The Solid Waste Division of the City of Sanford's Public Works Department, collects yard waste, brush and bulk trash weekly throughout the year. Tires and lead acid batteries are collected on an as needed basis.

Table B-2: Residential collections in the City of Sanford (FY2007-08)

MATERIAL COLLECTED	AMOUNT COLLECTED	% OF WASTE
Garbage	7,845 tons	52.3%
Recyclables	630 tons	4.2%
Bulk Trash	1,337 tons	8.9%
Yard Wastes	5,171 tons	34.5%
Tires	11.29 tons	<1%
L-A Batteries	.5 tons	<1%
TOTAL	14,994.79 tons	100%

Source: City of Sanford Records

Assessment:

The City of Sanford's waste collection program meets the needs of its residents. Waste collection costs the City of Sanford \$6.00/household/month.

Intended Actions:

The contract between the City of Sanford and Waste Management of the Carolinas, Inc. for the curbside collection of solid waste and recyclables expires June 30, 2013. Prior to the expiration of said contract, the City of Sanford will reevaluate its current collection methods and decide on a course of action including a new contract for the curbside collection of solid waste and recyclables by a private hauler.

Town of Broadway

Current Programs:

Residential waste generated within the Town of Broadway is collected curbside according to a 5 year contract with Waste Management of the Carolinas, Inc. Waste Management collects an estimated 560 tons of waste from Broadway residents annually at a cost of \$67,000.00 to the Town.

The Town of Broadway uses public employees and resources to collect an estimated 26 tons of bulky trash annually. Bulk Trash including furniture, mattresses and other large items is collected curbside and transported to Waste Management's transfer station at a cost to the Town of \$2,704.00 per year.

Assessment:

The Town of Broadway's waste collection program meets the needs of its residents.

Intended Actions:

The contract between the Town of Broadway and Waste Management of the Carolinas, Inc. for the curbside collection of solid waste expires June 30, 2013. Prior to the expiration of said contract, the Town of Broadway will reevaluate its current collection methods and decide on a course of action including a new contract for the curbside collection by a private hauler.

Non-Residential (Commercial-Industrial-Institutional)

Current Program:



An estimated 55,260 tons of non-residential waste, not including diverted wastes, is collected annually throughout the planning area. 98% of this waste is collected according to a contract between the generator and a private hauler licensed to do business in Lee County. The remaining 2% or 1,142 tons is generated by Lee County Government offices, parks and recreational facilities and the County's schools and is collected by county crews at a cost of

\$73,282.00 annually. Generators utilizing the County's waste collection services are charged \$4.00/cubic yard.

Assessment:

The current non-residential waste collection program meets the needs of the planning area.

Intended Actions:

There are no actions or changes planned regarding the collection of non-residential solid waste during this planning period.

Construction and Demolition Debris

Current Program:

The collection of construction and demolition debris generated within the planning area varies from private contract to municipal collection within the City of Sanford. Lee County does not provide for the collection of C&D debris within the unincorporated areas.



Assessment:

Methods of construction and demolition debris collection have historically met the needs of the planning area, however, since the closing of Lee County's C&D Landfill many unincorporated residents have requested that these materials be accepted at the convenience centers. The convenience centers are not equipped to accept large amounts of construction and demolition wastes.

Intended Actions:

Lee County has no plans to implement a program to collect large amounts of construction and demolition wastes. However, the Solid Waste Division is evaluating the feasibility of accepting small amounts of these wastes from County homeowners (no contractor waste will be accepted) at its Resource Management Facility (formerly C&D Landfill) for off site disposal through the Waste Management Transfer Station.

TABLE B-1: WASTE COLLECTION IN THE LEE COUNTY PLANNING AREA

WASTE STREAM	TONNAGE*	COLLECTION METHOD
Unincorporated- Residential	5,097	Drop-Off (Convenience Centers)
	11,041	Curbside – Private Hauler
City of Sanford – Residential	7,845	Curbside – Contract w/Hauler
	1,337	Curbside - City Crews
Town of Broadway- Residential	560	Curbside – Contract w/Hauler
	26	Curbside – Town crews
Commercial	24,149	Private Hauler
Industrial	29,853	Private Hauler
Institutional	1,142	Lee County Crews
	116	Private Hauler
TOTAL	81,166	

Source: Municipal records, waste hauler records and County Waste Disposal Report

*Does not include recyclables

C. RECYCLING AND REUSE ELEMENT

The Lee County planning area has made a strong commitment to diverting wastes from landfills. As illustrated in TABLE C-1 and throughout this plan all major waste generators, both public and private, have implemented waste diversion programs,

including recycling and reuse. According to available data the planning area is currently diverting an estimated 19% of its waste stream.

TABLE C -1: Summary of Waste Diversion in the Lee County Planning Area (FY 2007-08)

GENERATOR	TONS DISPOSED	TONS DIVERTED*	TOTAL TONS	% RECYCLED
Residential	25,906	8,519	34,425	25%
Commercial	24,149	824	24,973	3%
Industrial	29,853	9,802	39,655	25%
Institutional	1,258	156	1,414	11%
TOTAL	81,166	19,301	100,467	19%

Source: C-I-I surveys, Planning Area Data and County Waste Disposal Report July 1, 2007 - June 30, 2008.

*Includes "wastes" addressed as composted or mulched (see Part IV Section D) and special wastes (see Part IV Section I).

Residential

Unincorporated Areas

Current Program:

The 12,479 households located throughout Lee County's unincorporated areas have access to a variety of recycling opportunities. Recyclables generated by these households are collected through the County's six staffed convenience centers and account for 10% of the measurable total of recyclables collected throughout the planning area. Table C-2 shows recycling data for residential programs during fiscal year 2007-08. (Note that data includes "Special Wastes" that are described in greater detail in Part IV - Section I).

TABLE C-2: Summary of Residential Recycling in Lee County's Unincorporated Areas

MATERIAL	AMOUNT RECYCLED	POINT OF COLLECTION	PROCESSOR/MARKET
Corrugated Cardboard	190.27 tons	Convenience Centers	Sanford Recycling
Newsprint/Magazines	256.27tons	Convenience Centers	The News & Observer Recycling
Books	12.87 tons	Library Discards	Sonoco Recycling
Used Beverage Containers	7.38 tons	Convenience Centers	Sanford Recycling
Steel Cans	15.26 tons	Convenience Centers	Sanford Recycling
Glass Containers – Clear	48.28 tons	Convenience Centers	Sanford Recycling
Brown/Green	81.84 tons	Convenience Centers	Sanford Recycling
Plastic Containers			
HDPE	18.82 tons	Convenience Centers	Sanford Recycling
PETE	28.84 tons	Convenience Centers	Sanford Recycling
White Goods/Scrap Metal	505.27 tons	Convenience Centers	Stateline Scrap Metal
Tires	664.96 tons	Landfill Area	Central Carolina Tire Disposal
Used Motor Oil	6,983 gallons	Convenience Centers	Noble Oil Services
Used Oil Filters	1,750 filters	Convenience Centers	Noble Oil Services
Used Anti-freeze	547 gallons	Convenience Centers	Noble Oil Services
Lead Acid Batteries	10.32 tons	Convenience Centers	Chatham Salvage
Electronics	39.06 tons	Convenience Centers	Synergy Recycling
Rechargeable Batteries	.02 tons	Convenience Centers Drop off Locations	RBRC
Ink Jet Cartridges	NA	Convenience Centers	Recycle Rewards
Cell Phones	NA	Convenience Centers	Habitat for Humanity
Cooking Oil	923 gallons*	Convenience Centers	Griffin Industries

Source: Lee County Solid Waste Records

*Includes oil collected from Lee County Schools



In March, 2009 the menu of materials accepted as recyclables was expanded to include old clothing and footwear through a partnership with Planet Aid. This partnership with Planet Aid, a non-profit organization dedicated to improving the lives of people in developing countries, could divert up to 40 tons of textile "waste" annually.

Assessment:

The planning area has implemented a wide range of residential recycling and reuse opportunities. However, a disappointing 22% of regular convenience center users are

actually participating in them. Participation is even lower when the number of households using private waste collectors is factored in.

Intended Actions:

In an effort to increase recycling and reuse within the planning area, Lee County Solid waste plans to implement the following:

- Lee County has set a goal to increase participation in our recycling programs by 30% over the planning period. Through surveys and feedback of regular convenience center users, Lee County hopes to identify barriers to participation. Identification of said barriers will allow the Solid Waste Division to adjust its program accordingly. A 30% increase in participation could divert up to 600 tons annually.
- News and Observer Recycling currently collects newspaper and magazines from the County Convenience centers for recycling. Recently N&O has begun adding more paper items to its menu of materials acceptable for recycling including office paper and junk mail. In November, 2009 Lee County plans to add office paper and junk mail to its menu of recyclables. These additional items have the potential to divert an additional 180 tons of material from the landfill annually.
- Develop and distribute a “re-use guide” designed to make the areas’ residents aware of local repair shops, thrift shops, and charitable organizations that accept donations of used household items that might otherwise be thrown away. The “guide”, to be published in July 2010, will also include a section on waste reduction methods at home and at the office. The potential diversion of materials through reuse cannot be measured through available data at this time.
- Construct a "Swap Shop" at the Wilson Road Convenience Center to allow items that can be reused to be put back into usefulness rather than landfilled. This "Swap Shop" is scheduled to be implemented in the Fall 2009.

City of Sanford

Current Program:



39% (5,869 tons) of the waste stream managed by the City of Sanford is recycled. The City of Sanford provides, through a contract with Waste Management of the Carolinas, Inc., weekly curbside collection of recyclables for its 8,350 single family households. Recyclables are collected commingled using a single 18 gallon green box

and are transported to Waste Management's Recycle America Material Recovery Facility in Raleigh, North Carolina for processing. Recycling collection for multi-family residences or apartments is available upon request. Approximately 35% of the City's residents currently participate in the "green box" program. These recyclables, including newspaper, plastic containers, glass containers, used beverage containers, and steel cans, account for 7% (630 tons) of the diverted waste or 4.2% of the waste stream managed or controlled by the City.

White Goods, scrap metal, tires, lead-acid batteries, and yard wastes are collected curbside by city crews. These items represent 94% (5,239 tons) of the diverted waste. Programs dealing with the management of these wastes are described in greater detail in the Special Wastes and Composting and Mulching sections of this Plan. Table C-3 shows recycling data for recyclables collected by the City of Sanford during fiscal year 2007-08.

TABLE C-3: Summary of Residential Recyclables Collected in the City of Sanford (FY 2007-08)

MATERIAL	AMOUNT RECYCLED	POINT OF COLLECTION	PROCESSOR/MARKET
Newspaper	190 tons	Curbside	WM's Recycle America MRF
Cardboard	45 tons	Curbside	WM's Recycle America MRF
Magazines	20 tons	Curbside	WM's Recycle America MRF
Plastic Containers		Curbside	WM's Recycle America MRF
HDPE	25 tons		
PETE	35 tons		
Other	12 tons		
Glass Containers		Curbside	WM's Recycle America MRF
Clear	195 tons		
Brown	20 tons		
Green	20 tons		
Used Beverage Containers	30 tons	Curbside	WM's Recycle America MRF
Steel Cans	38 tons	Curbside	WM's Recycle America MRF
Tires	8 tons	Curbside	Central Carolina Tire Disposal
Scrap Metal	46 tons	Curbside	Lee Iron & Metal
White Goods	13 tons	Curbside	Lee County C&D Landfill
L-A Batteries	.5 tons	Curbside	Local Auto Parts Stores
Yard Wastes	5,171 tons	Curbside	City of Sanford Compost Facility

SOURCE: City of Sanford records for FY 2007-08

Assessment:

The City of Sanford's current residential recycling programs meet the needs of its residents. Residential recycling costs the City of Sanford \$2.20/household/month.

Intended Actions:

The contract between the City of Sanford and Waste Management of the Carolinas, Inc. covering the curbside collection of recyclables expires in 2013. The City plans to renegotiate or enter a new contract with a private hauler for the curbside collection of recyclables prior to the expiration of its current contract on June 30, 2013.

Town of Broadway

Current Program:

The Town of Broadway does not provide recycling programs for its residents. However, residents who wish to recycle can purchase a permit from Lee County which allows them to use the convenience centers for their recycling needs. The cost of a permit is \$50.00/household/year.

Assessments:

The Town of Broadway's current waste management programs meet the needs of its residents. A recent evaluation of options available to the Town found that the implementation of a recycling program would not be economically practicable at this time.

Intended Actions:

The Town of Broadway will continue to monitor available recycling options and will act accordingly.

Commercial-Industrial-Institutional (C-I-I)

Lee County controls or manages approximately 2% of the estimated 66,042 tons of discards generated throughout the planning areas C-I-I sector. The remaining 98% is managed by the generator through private contracts. As a result, measurement of the extent of C-I-I recycling programs is difficult and the following narrative may only present a partial picture.

Current Programs and Assessment:

County Managed Away-From-Home Recycling

Lee County has dedicated substantial resources to recycling programs servicing the County's schools, governmental offices, public parks and recreational facilities and various non-profit organizations. In 2004, Lee County received a \$21,275 grant from NCDENR's *Community Waste Reduction and Recycling Grant* program to help fund the implementation of "away-from-home" recycling programs and promotional materials. 78% (\$16,651.65) of these funds were used to purchase specially designed containers to aid the separation of various materials from this waste stream. An estimated 153 tons of recyclables, including newspaper, magazines, mixed office paper, corrugated cardboard and commingled containers are collected through these programs annually. Since the 2006-16 update this program has expanded from 3 to 13 of the County's 15 public schools resulting in a 58% increase in recovered materials.



TABLE C-4: Summary of County Managed C-I-I Sector Recycling

MATERIAL RECOVERED	AMOUNT RECOVERED
Cardboard	63.39 tons
Mixed Paper	20.54 tons
Newspaper and Magazines	66.62 tons
Commingled containers	2.35 tons

Source: Lee County Solid Waste Records

Privately Managed Recycling

In an effort to gauge the level of waste reduction, recycling and reuse among the planning areas' commercial and industrial sector, Lee County sent out surveys asking for information regarding existing programs. Responses to these surveys have identified waste reduction and recycling programs ranging from office paper and used beverage containers to programs targeting a wide variety of materials specific to the nature of the generator. According to available records, these programs are responsible for the recycling of 9,802 tons of waste annually.

Intended Actions:

Where the County has limited or no control it will continue to play an advisory role in helping small businesses and industries implement recycling programs. Lee County will

continue to promote and implement C-I-I recycling programs in areas where it has control over the management of waste. This will include:

- Expand away-from-home recycling into parks and recreational facilities where it does not currently exist. This expansion will continue according to available resources. Two parks will be added by September, 2009.
- The *Waste Reduction, Recycling and Reuse Committee* will launch a promotional program on November 15, 2009 designed to increase in-house participation in the away-from-home recycling programs. This program which will coincide with *America Recycles Day* could be responsible for the diversion through recycling and waste reduction of up to 100 tons of waste.

D. COMPOSTING AND MULCHING ELEMENT

Approximately 12,180 tons of "wastes" generated throughout the planning area are composted or mulched annually. These wastes and available management facilities are outlined in Table D-1.

Unincorporated Areas

Current Program:

The unincorporated areas of Lee County are predominantly rural in character and much of the yard wastes and organic land clearing debris including leaves, grass, stumps, limbs and other brush are managed on site. On site management methods might include pushing the debris to an unused portion of the generation site where weather and time will take care of it or in many cases these wastes are burned. The County does, however, offer its citizens other options for dealing with these wastes

Mulching



Lee County provides an area at its County Resource Management Facility (formerly C&D Landfill) for the management of many organic wastes generated throughout the planning area. These wastes include yard wastes, stumps, limbs, trees and brush. In 2009, Lee County ground 64 tons of pallets (accepted prior to closing of the Landfill) and clean wood waste and 415 tons of yard waste, stumps and brush. The resulting pallet chips have been used as boiler fuel, bulking material for local compost sites, and as mulch. Yard wastes,

limbs, stumps and brush are ground into mulch suitable for use by area residents and landscapers. The County's composting and mulching programs cost approximately \$41,075.00 annually.

Since July 30, 2008 pallets and clean wood waste have not been accepted at the Lee County Resource Management Facility (formerly C&D Landfill) for grinding into mulch/wood chips.

Backyard Composting

In 2004, Lee County General Services and the Lee County Cooperative Extension Service co-sponsored a backyard composting workshop. The 45 individuals who participated in this workshop learned the basics of starting their own backyard composting or vermicomposting enterprise. This workshop was an effective method to promote waste reduction through backyard composting at no cost to the County. The County plans to conduct similar workshops in the future.



As a follow-up to the backyard composting workshop, Lee County sponsored a compost bin sale. 150 "Earth Machines" were sold to County residents for \$38.00/bin. Based on national statistics we have estimated that this program is responsible for an estimated annual diversion of 37.5 tons of food and yard trimmings from the planning area's waste stream.

Assessment:

The composting and mulching programs provided by Lee County are the most economically practicable methods available at this time.

Intended Actions:

Lee County plans to continue its mulching program, but in an attempt to maximize the removal of organics from the waste stream the County plans to increase its efforts to include the following:

- With the landfill ban on wooden pallets set to take effect on October 1, 2009, Lee County will re-evaluate its decision to no longer accept pallets for grinding. If

economically practicable, Lee County will reinstate its pallet grinding program. This could result in the diversion of an estimated 250 tons of wood waste annually.

- Take advantage of International Compost Awareness Week to promote compost as a means of resource management. Activities may include displays, workshops and future compost bin sales. The annual sale of compost bins could result in the diversion of an estimated 37 tons of food and yard trimmings annually.
- The County currently gives away its mulch to interested parties at no cost. In an effort to generate additional revenue to help pay for the cost of the program, the County will investigate the option of selling its product.

City of Sanford

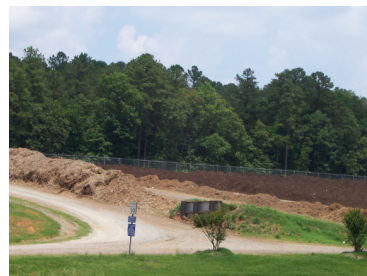
Current Programs:

Composting and Mulching



The City of Sanford currently owns and operates a compost facility according to conditions outlined in permit number 53-03-YW issued by the North Carolina Department of Environment and Natural Resources' Solid Waste Management Division. This permit was issued on July 2, 1992. In February, 1998 the City of Sanford was permitted to operate a large, type III compost facility under permit number SWC-53-03. This permit was renewed in 2004 for an additional five year period. This facility, located on 55 acres of property adjoining the City's Public Works Service Center in northeast Sanford, produces compost and woodchips suitable for use by the areas' residents and landscapers.

City crews collect an estimated 2,800 tons of loose leaves at the curb year round. The leaves are windrowed at the compost facility for the composting process. Animal manure such as chicken litter is periodically added to speed the process as well as irrigation by City Crews. The leaves are aerated with a compost turner weekly. Mature compost is produced in approximately 10 to 12 months.



City crews also collect an estimated 2,500 tons of limbs and brush at the curb throughout the year. Limbs and brush are ground into woodchips by a private contractor approximately every 6 months for sale to the public.

Backyard Composting

Backyard composting is encouraged by the City of Sanford but few City resources are dedicated to its promotion other than support of the County's efforts.

Other

The City of Sanford has had street sweeping samples tested at NCSU to determine if they can be screened and composted. The City received approval to accept this waste at its compost facility on October 10, 2000. The City has not expanded its compost facility to include street sweepings at the present time, but will continue to investigate its feasibility.

Assessment:

The collection of leaves, limbs and other yard wastes costs the City of Sanford an estimated \$105.92 per household. Revenue from the sale of screened compost and woodchips during FY 2007-08 amounted to \$35,150.00.

Intended Actions:

The City of Sanford's composting and mulching program meets the needs of its residents and, therefore, has no plans to make any changes. The City will, however, continue to apply for renewal of its permit to operate the compost facility.

Town of Broadway

Current Programs:

The Town of Broadway does not provide a composting or mulching program for its residents. Town residents rely on the Lee County programs as described earlier in this section.

Assessment:

Lee County's composting and mulching programs meet the needs of the residents of the Town of Broadway.

Intended Actions:

The Town of Broadway has no plans to implement a composting or mulching program at this time.

Private Facilities

In addition to the government controlled composting and mulching options available to the planning area there are a number of privately owned and operated facilities. These facilities accept approximately 6,400 tons of planning area's compostable/mulchable materials annually.

TABLE D-1: COMPOSTING/MULCHING FACILITIES AVAILABLE TO PLANNING AREA

FACILITY	LOCATION	MATERIALS ACCEPTED	AMOUNT ACCEPTED ANNUALLY*
Lee County Resource Management Facility	Lemon Springs, NC	Limbs, Trees, Stumps, Brush, Leaves, Grass, other naturally occurring vegetative materials	479 tons
City of Sanford Compost Facility	Sanford, NC	Limbs, Trees, Stumps, Brush, Leaves, Grass, other naturally occurring vegetative materials	5,300 tons
McGill Environmental Systems, Inc.	New Hill, NC	Animal Waste**, Food Waste, Grease Trap Waste, Municipal/Industrial Biosolids, Wood Wastes, Sheetrock	1,837 tons
Brooks Contractor Compost Facility	Goldston, NC	Wood & Paper Materials, Clean Wood Wastes, Waxed Cardboard, Food Scraps, Food Processing Wastes, Grease Trap Wastes, Hatchery Waste, Leaves	4,564 tons

*Figures from Facility Annual Reports

**Predominantly Poultry Processing Wastes

E. INCINERATION ELEMENT (with or without energy recovery)

Current Program and Assessment:

Except in the case of regulated medical waste, the planning area does not utilize incineration as a method of solid waste management. As noted in its original 10-year plan (July 1, 1996 – July, 2006), the planning area considers incineration an inappropriate waste management option due to the local waste flow, public opinion, and capital/operating costs.

Intended Actions:

The planning area does not have any plans to utilize incineration with or without energy recovery in the management of its solid waste. However, the planning area will monitor developments in waste-to-energy technology and re-evaluate this method as a waste management alternative to landfilling should local or regional circumstances change.

F. TRANSFER OUTSIDE GEOGRAPHIC AREA ELEMENT

Current Program:

The FY 2007-08 County Waste Disposal Report for Lee County as prepared by the North Carolina Department of Environment and Natural Resources (NCDENR) reported an estimated 1.10 tons/capita of municipal solid waste (msw) being transferred outside of the Lee County planning area. This waste, estimated at 62,080 tons for FY 2007-08, is transported outside the planning area via transfer station, private hauling contract and/or direct haul. Facilities utilized for disposal of waste generated within the planning area are summarized in Table F-1.

Transfer Station



Waste Management, Inc. owns and operates the only transfer station located within Lee County. This facility accepts garbage, trash, bulky waste, and light construction and remodeling debris for a tipping fee as outlined in a contract between Lee County and Waste Management. 89% of the municipal solid waste transferred outside of the planning area is accepted at this facility and hauled approximately 72 miles (one way) to Waste Industries' Sampson County Landfill in Roseboro, North Carolina.

Other

11% of the solid waste transferred outside of the planning area is hauled to the disposal facility directly from the point of generation. This waste consists primarily of industrial and medical waste.

TABLE F-1: FACILITIES OUTSIDE THE PLANNING AREA ACCEPTING LEE COUNTY WASTE

FACILITY	LOCATION	TYPE OF WASTE	DISPOSAL METHOD	AMOUNT DISPOSED ANNUALLY*	% OF WASTE EXPORTED
WI-Sampson County Disposal, Inc.	Roseboro, NC	MSW	Landfill	55,482.46 tons	89%
Uwharrie Env. Reg Landfill	Mt. Gilead, NC	MSW	Landfill	6,044.43 tons	10%
Palmetto Landfill	South Carolina	MSW	Landfill	437 tons	<1%
Stericycle	Concord, NC	Medical Waste	Incineration	116.60 tons	<1%

Source: NCDENR County Waste Disposal Report

*Figures from Facility Annual Reports

Assessment:

At its current rate of disposal, Lee County can expect to transfer approximately 718,254 tons of solid waste outside of the planning area over the next 10 years. At this time the planning area has determined that transferring this waste outside of Lee County is the most effective option for meeting its solid waste disposal needs. There are no plans to construct either an msw landfill or additional transfer stations within Lee County in the foreseeable future.

Intended Actions:

Lee County's contract with Waste Management, Inc. for use of the transfer station expires on June 30, 2013. At that time Lee County will enter a new agreement with either Waste Management or some other waste management company.

G. DISPOSAL ELEMENT

Despite our best efforts to implement and promote waste reduction, reuse and recycling programs, the Lee County planning area still relies on landfills as its main method of solid waste management. FY 2007-08 statistics show that approximately 1.19 tons/capita of solid waste generated within the planning area is landfilled annually. Although this represents a 2.6% increase over the baseline rate of 1.16 tons/capita, it is, however, the third consecutive annual decline. At the current rate of disposal it is anticipated that 777,020 tons of municipal solid waste will be landfilled over the next ten years.



Municipal Solid Wastes

Current Program:

66,949 tons of putrescible waste, including animal offal or carcasses, but excluding sewage and human waste, which definition, by way of example, but not by way of limitation, shall include refuse, garbage, trash, bulky waste, and light construction and remodeling debris generated by public and private enterprises and individuals within the planning area was disposed of in a sanitary landfill during FY 2007-08. 82% of this waste is disposed of at Waste Industries' Sampson County Disposal Inc. landfill via transfer station according to a contract between Lee County and Waste Management, Inc. The remaining 18%, which is primarily industrial waste, is hauled directly from the point of generation according to private agreements between the disposal facility and generator.

Assessment:

Since the closure of Lee County's msw landfill in October, 1993 the planning area has investigated numerous options for developing a new single-county or regional landfill including a 2003 proposal by MMR of Raleigh to locate an msw landfill in Lee County and a 2004 regional landfill feasibility study among the Triangle J Council of

Government communities. Neither of which proved to be in the best interests of Lee County at that time.

Lee County will continue to investigate all available options to meet its solid waste needs. However, at this time the planning areas current methods of waste disposal are the most efficient and provide enough disposal capacity to meet its needs beyond the current planning period (2009-2019).

Intended Actions:

Lee County's current contract with Waste Management, Inc. for use of their transfer station expires on June 30, 2013. Prior to that time Lee County will decide whether to enter a new agreement with Waste Management or with some other waste management company to cover the disposal of solid waste.

Construction & Demolition Debris (C&D)

Current Program:

According to statistics reported by the US EPA, Construction and demolition debris make up an estimated 12.3% of the waste stream. The primary facility for disposal of this waste has been the Lee County C&D Debris Landfill. Since its closure on June 30, 2008, however, construction and demolition wastes are hauled directly to the transfer station or to privately owned and operated facilities outside of the planning area.



Assessment:

Waste Management's Lee County transfer station and other privately owned facilities located outside of the planning area have disposal capacity to extend beyond this planning period.

Intended Actions:

The planning area has no plans to revise current management practices for the disposal of construction and demolition debris.

Land Clearing & Inert Debris (LCID)

Current Program:

Land clearing and inert debris commonly include uncontaminated soil, stumps, tree limbs, grass and other natural occurring vegetative materials, untreated/unpainted wood, concrete, unpainted brick, unpainted concrete block, rock, gravel, and asphalt. Since the closure of the Lee County Construction and Demolition Debris Landfill on June 30, 2008, generators within the planning area must rely on private facilities for the disposal of these wastes. An inventory of private facilities available to the planning area for the disposal of land clearing and inert debris is included in Appendix C.

Assessment:

The methods for managing or disposing of LCID generated within Lee County meet the needs of the planning area.

Intended Actions:

The planning area has no plans to revise current management practices for the disposal of land clearing and inert debris.

H. EDUCATION WITH THE COMMUNITY AND THROUGH THE SCHOOLS

Unincorporated Areas

Current Programs:

Lee County is committed to providing strong programs designed to educate the community about waste reduction, reuse and recycling opportunities available throughout the planning area. The County reaches out to the community through the use of printed literature, local media, presentations to schools and community groups, and the use of state and national events.

Printed Literature

Lee County uses a number of brochures and flyers to promote its programs and educate the community. The centerpiece to our educational efforts is the “All Aboard” brochure which outlines the many recycling opportunities and solid waste services available within Lee County. This bi-lingual brochure was originally produced and distributed in 2004 with funds provided through NCDENR’s *Community Waste Reduction and Recycling Grant* program. This brochure which replaced the “Lee County Convenience Center Guide” originally printed in 1998 was distributed by mail to over 11,000 households within the unincorporated area at a cost of \$5,600.00.

In addition to “All Aboard”, the County distributes literature that is more generic and can be used to reach the City of Sanford and Town of Broadway residents. These materials, developed by Keep America Beautiful and other national organizations, deal with a number of waste related topics including waste oil recycling, litter prevention, purchasing products with recycled content, and proper paint reuse/disposal.

Local Media and Public Forums

The County has also taken advantage of local media and public forums to help get the message out. Articles, press releases, advertisements in local newspaper and television, and booths at the County fair and similar venues have become valuable informational/promotional tools in our efforts to educate the community about waste reduction, reuse, and recycling issues and opportunities.

Schools and Community Organizations

The County plays an active role in fostering solid waste and recycling education in the schools and among community organizations. This includes presentations presented by the Solid Waste Superintendent at the request of teachers and community leaders. These programs are presented to promote environmentally responsible solid waste programs including source reduction, recycling and purchasing recycled products. These presentations are, in many cases, generic in scope so as to benefit the residents of the City of Sanford and the Town of Broadway, as well as, the unincorporated areas of Lee County.

The “away-from-home” recycling programs, described in greater detail in Part IV - Section C, implemented throughout the schools and County offices have also served as a tool to promote recycling by exposing students to recycling on a daily basis in the hope that the message will get home. The specially designed containers also double as prompts or reminders.



Recycle Guys/RE3



Lee County has partnered with the North Carolina Department of Environment and Natural Resources' Division of Pollution Prevention in bringing the Recycle Guys and RE3 campaigns to the public. As a partner, Lee County has incorporated many of the resources developed through these efforts into its education and promotional programs.

Lee County has also partnered with other communities within the Triangle region on unifying educational efforts where practicable. This group known as "SWEET" consists of representatives from the counties of Chatham, Durham, Lee, Orange, Wake, the cities of Durham and Raleigh and the Town of Cary.

Internet

Lee County's web site at www.leecountync.gov plays a vital role in helping to educate residents about solid waste issues and practices throughout the planning area.

Other



San-Lee Outdoor Recreation and Education Park holds "Recycle Week" as part of its Summer Camp programs. Recycle Week includes tours of local recycling facilities, reuse activities, learning opportunities and backyard composting demonstrations. In addition, Lee County participates in many national programs including America Recycles Day, Earth Day, and NC Big Sweep, to promote waste reduction, reuse and recycling opportunities

throughout the planning area.

Assessment:

The County believes that although increased recycling opportunities have had a positive effect, much of this success can be attributed to the intensified public education efforts described in this section. However, Lee County recognizes that it must intensify its program in an effort to reach the 2,620 unincorporated area households currently using private contractors for their waste collection needs, as well as the growing Hispanic population.

Intended Actions:

An estimated 28% of Lee County's unincorporated area's residents participate in the recycling and reuse opportunities on a regular basis. In an effort to increase participation in these programs, Lee County is currently developing ways to enhance its current educational efforts. These efforts will include a redesigned public education and promotional initiative using community based social marketing methods where practicable. The essence of this initiative will be to foster sustainable behavior throughout the planning area.

In addition to the general restructuring of its efforts, the county plans to specifically do the following:

- Survey a random sampling of regular convenience center users to determine barriers, real or perceived, to participation in reduction, reuse and recycling programs. This survey is to be completed in the Summer of 2009.
- Update the convenience center guide to reflect program changes. This update will be distributed beginning September, 2009.
- Redesign the promotional program to address the feedback from the public and changes to the program. It is our goal to increase recycling program participation by 30% during the planning period which could divert an estimated 336 tons of material per year.
- Replace current convenience center and landfill signs with new bi-lingual signs where practicable. This action is an on-going process and completed according to available resources.

City of Sanford

Current Programs:

The City of Sanford utilizes the education and public awareness programs administered by Waste Management of the Carolinas, Inc. according to the collection contract. The contractor is also responsible for notifying residents through the local media of any changes in service.

The City of Sanford prepares and distributes brochures for the compost facility and bi-lingual door hangers are used to advise residents of solid waste services. The City also uses radio, television and print media to advertise and promote City waste services.

Assessment:

The City of Sanford's educational and promotional efforts meet the needs of the City's residents.

Intended Actions:

The City of Sanford will continue to take advantage of educational programs offered by Waste Management of the Carolinas, as well as work with local media to educate the public about solid waste services. This will also include booths at community events and the Lee County Fair.

Town of Broadway

Current Programs:

The Town of Broadway utilizes the education and public awareness programs administered by Waste Management of the Carolinas, Inc. according to the collection contract. The contractor is also responsible for notifying residents through the local media of any changes in service.

Assessment:

The Town of Broadway's educational and promotional efforts meet the needs of the City's residents.

Intended Actions:

The Town of Broadway will continue to take advantage of educational programs offered by Waste Management of the Carolinas, as well as work with local media to educate the public about solid waste services.

I. SPECIAL WASTE ELEMENT

Special wastes are solid wastes which require handling, disposal and/or recycling by methods other than those used to manage conventional wastes. These wastes include household hazardous wastes, used pesticide containers, white goods, tires, used motor oil, used oil filters, used antifreeze, lead acid batteries, rechargeable batteries, ink jet and toner cartridges, and cell phones. Discarded computer equipment and televisions are dealt with separately in Part IV Section N.

Household Hazardous Wastes

Current Program:



Household hazardous wastes (HHW) generated by the planning area's residents are managed through an annual HHW collection event. On October 18, 2008 Lee County, using a private contractor, removed nearly 16 tons of HHW from its general waste stream. Table I-1 shows a breakdown of the actual amounts and types of wastes collected. This program funded through the annual solid waste fee cost the County \$17,670.00.

TABLE I-1: Household Hazardous Wastes Collected in Lee County October 18, 2008

WASTE DESCRIPTION	AMOUNT	UNIT	DISPOSAL TECHNOLOGY
Paint and Paint Related Materials	21,060	lbs.	Fuels Blending
High BTU Liquids	5,530	lbs.	Fuels Blending
Aerosols	745	lbs.	Fuels Blending
Reactive	1	55 gal drum	Incineration
Oxidizers	1	55 gal drum	Incineration
Caustics	720	lbs.	Treatment
Acids	405	lbs.	Incineration
Fluorescent Light Bulbs	447	Bulbs	Recycling
Mercury Debris	67	lbs.	Recycling
NiCD Batteries	1	5 gal drum	Recycling
Alkaline Batteries	325	lbs.	Landfill
Oil Filters	1	55 gal drum	Recycling
Propane Cylinders	40	cyl.	Recycling

Source: ECOFLO, Inc.

The planning area also uses this event to promote the proper disposal of pesticides generated by the agricultural community as well as residents. 734 lbs. of pesticides were

managed and financed through the North Carolina Department of Agriculture and Consumer Services Pesticide Disposal Assistance Program (NCDA&CSPDAP).

Assessment:

Lee County, with the cooperation and assistance of the Lee County Cooperative Extension Service and the NCDA&CSPDAP has sponsored a HHW Collection event annually since 2001. Although the county continues to evaluate its options, including a permanent facility, our current program effectively and efficiently meets the planning area's needs.

Intended Actions:

The planning area has no plans to change its current household hazardous waste collection program.

Pesticide Containers

Current Program:

In 1997 Lee County implemented a permanent pesticide container recycling program through a grant from the North Carolina Department of Agriculture and Consumer Services. Properly rinsed plastic pesticide containers are accepted at the collection facility located at the Lee County Resource Management Facility (formerly the C& D Debris Landfill). Acceptable containers are shredded on site and transferred to market by U.S. Ag Recycling of Waller, Texas at no cost to Lee County. 1,833 containers are recycled annually.



Assessment:

This program is an economical and environmentally responsible method of managing the plastic pesticide containers generated by the planning area's agricultural community.

Intended Actions:

The county plans to continue this program indefinitely. There are no plans to make any changes.

White Goods

Current Program:



White goods, large appliances including, but not necessarily limited to refrigerators, ranges, water heaters, freezers, air-conditioners, washing machines, clothes dryers, and dishwashers generated within the planning area are recycled. Generators within the unincorporated areas of Lee County can bring white goods and other scrap metal items to any of the six staffed convenience centers or the white goods staging area located at the Lee County Resource Management Facility (formerly the C& D Debris Landfill). Residents of the City of Sanford and the Town of Broadway are provided with a curbside white goods collection.

White goods and scrap metal are managed according to a contract between Lee County and Stateline Scrap Metal, Inc. Prior to transportation off site, Stateline Scrap Metal, Inc. removes any and all refrigerants from refrigerators, freezers, and air-conditioners. 505 tons of white goods and other scrap metal were recycled from the planning area in 2008. All costs incurred from this program are funded through the quarterly distributions from the white goods advance disposal fees.

Assessment:

The current white goods management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current white goods management program during this planning period.

Tires

Current Program:

Lee County residents, including the City of Sanford and the Town of Broadway, can bring up to 5 waste tires to the Lee County Resource Management Facility (formerly the C& D Debris Landfill) for transfer at no charge. Tires are stored in an open-ended roll-off container to prevent them from becoming a breeding ground for mosquitoes and other animals. Once the container is full it is transported to



Central Carolina Tire Disposal (CCTD) in Cameron, North Carolina. The City of Sanford provides its residents with a twice per year curbside collection of tires which are hauled directly to CCTD.

Generators with large quantities of waste tires, including tire retail outlets, are required to haul tires directly to a permitted disposal facility.

The planning area hauled 782.31 tons of waste tires to CCTD from the planning area in FY 2007-08. 85% (664.96) of these tires were recycled. This program which cost the county \$42,879.71 is funded through distributions from the Scrap Tire Disposal Account.

Assessment:

The current waste tire management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current waste tire management program during this planning period.

Used Motor Oil

Current Program:



Used motor oil and other fluids including, crank case drainings, hydraulic fluids, transmission fluids, diesel fuel, and kerosene generated by do-it-yourselfers residing in Lee County's unincorporated areas are accepted for recycling at all of the six staffed convenience centers. Noble Oil Services, located in Sanford, collected and recycled 6,983 gallons of these fluids in 2008 at no cost to the county.

Residents of the City of Sanford and the Town of Broadway must rely on service stations, participating automotive parts stores, automotive service centers or the County's household hazardous waste program for their motor oil disposal needs.

Assessment:

The current used motor oil management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current used motor oil management program during this planning period.

Used Oil Filters

Current Program:

Since 2001 Lee County has collected used oil filters at its six staffed convenience centers. Lee County do-it-yourselfers recycle approximately 7 – 55 gal. drums (1,750 filters) annually. Noble Oil Services provides this service to the County at per drum cost of \$77.00.



The City of Sanford and the Town of Broadway do not provide an oil filter collection program. Residents of these municipalities must rely on a few automotive parts stores or the County's household hazardous waste program.

Assessment:

The current used oil filter management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current used oil filter management program during this planning period.

Used Antifreeze

Current Program:

Lee County's six staffed convenience centers collect an estimated 547 gallons of used antifreeze annually. This program costs the County \$.54 per gallon according to its agreement with Noble Oil Services.

The City of Sanford and the Town of Broadway do not provide an antifreeze collection program. Residents of these municipalities must rely on a few automotive parts stores or the County's household hazardous waste program.

Assessment:

The current used antifreeze management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current used antifreeze management program during this planning period.

Lead-Acid Batteries

Current Program:



An estimated 8 tons of lead-acid batteries will be recycled through the County's convenience centers this year. Collected batteries are stockpiled at a staging area located at the Lee County Resource Management Facility (formerly the C& D Debris Landfill) where they are collected by Chatham Salvage of Bear Creek, NC. Chatham Salvage provides this service at no cost to the County. The County receives revenue for the sale of these batteries according to

current market prices.

The City of Sanford provides a bi-annual curbside collection of lead-acid batteries for its residents. 150 batteries are recycled annually.

The Town of Broadway does not provide a lead-acid battery collection program. Town residents must rely on the few local automotive parts stores or the County's household hazardous waste program.

Assessment:

The current lead-acid battery management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current lead-acid battery management program during this planning period.

Rechargeable Batteries

Current Program:

Lee County participates in the *Call2Recycle* program administered by the Rechargeable Battery Recycling Corporation (RBRC). This program recycles rechargeable batteries including nickel cadmium (Ni-Cd), nickel metal hydride (Ni-MH), lithium ion (Li-ion), and small sealed lead (PB) at no charge to participants. There are a number of collection points conveniently located throughout the planning area. These points include the County's six convenience centers, the Lee County Department of General Services main office, Lowe's, RadioShack, and Fastenal.



Non-rechargeable batteries including, but not limited to alkaline, lithium primary and wet cell are accepted at the County's annual household hazardous waste event.

Assessment:

The current battery management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current battery management program during this planning period.

Ink Jet & Toner Cartridges

Current Program:

Ink jet and toner cartridges generated within the Lee County planning area are recycled through the Recycle Rewards program. This program is available to all generators throughout the planning area and is provided at no cost to the County. Recycle Rewards pays the County for certain ink jet cartridges.



In addition to ink jet cartridge recycling through Recycle Rewards, Lee County promotes the recycling efforts of retail outlets including Office Max and cartridge manufacturers.

Assessment:

Lee County's current method of managing ink jet and toner cartridges meets the needs of the planning area.

Intended Actions:

Lee County will continue its ink jet and toner cartridge recycling partnership with Recycle Rewards.

Cell Phones

Current Program:



In November, 2005 Lee County signed on to a cell phone recycling program started by RMS Communications Group in partnership with Special Olympics. Since that time Lee County has continued to partner with community organizations to help them raise funds through the reuse and recycling of discarded cell phones. Currently discarded cell phones collected at the County's convenience centers are donated to the Sanford Area Habitat for Humanity. This program is provided at no cost to the County.

Assessment:

This program is a simple, cost effective method of recycling unwanted cell phones generated within the Lee County planning area.

Intended Actions:

Lee County will continue to work with community organizations to keep discarded cell phones out of the waste stream.

Cooking Oil and Grease

Current Program:

Lee County recycles cooking oil and grease generated by households and public schools within the planning area. Griffin Industries has placed a 300 gallon capacity tank at the Lee County General Services Center to hold any cooking oil and grease collected through the County's convenience centers and schools. Griffin Industries collects the equivalent of 21 lbs. of cooking oil per day from the planning area at no cost to the County.



Assessment:

The current cooking oil and grease management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current cooking oil and grease management program during this planning period.

J. ILLEGAL DISPOSAL/LITTER ELEMENT

Illegal Disposal

Unincorporated Areas

Current Program:



On September 15, 2008, the Lee County Board of Commissioners passed a revised ordinance covering solid waste management in the unincorporated areas of the County. The *Lee County Solid Waste Ordinance* prohibits the discarding, disposing, leaving, or dumping of any solid waste on or along any street or highway or on public or private property unless said solid waste is placed in a

receptacle or at a location designated for the deposit of solid waste. The revised ordinance goes further, however, by strengthening local enforcement powers with the addition of the following provisions:

- If any solid waste and/or recyclable material disposed of in violation of this chapter can be identified as having last belonged to, been in the possession of, sent to or received by or to have been the property of any person prior to being disposed of, said identification shall be presumed to be prime facie evidence that such person disposed of or caused to be disposed of said solid waste and/or recyclable material in violation of this chapter.
- The Director of General Services or his/her authorized representative shall be authorized as public officials to investigate violations of this chapter and, upon determination that such a violation has occurred, issue civil penalty citations.
- The Sheriff, Director of General Services or their designated representative are hereby empowered to issue civil citations upon the observance of a violation of this chapter. It is the intent of this chapter that each person is responsible for all acts involving vehicles and equipment owned by him/her.

Open burning of solid waste is also prohibited by law within Lee County. Violators are given one written and/or verbal warning by the Solid Waste Superintendent or local law enforcement agencies. Repeat offenders are referred to NCDENR's Division of Air Quality. The penalties for open burning of solid waste in North Carolina are substantial and may include fines of up to \$25,000.



The *Lee County Solid Waste Ordinance* further gives the Board of Commissioners the power to grant franchises for the operation of sanitary landfills within Lee County. All applicants for a franchise are required to include a waste load inspection plan detailing how the facility will prevent the landfilling of non-permitted and banned waste. The Board of Commissioners retains the right to terminate or suspend, upon notice and hearing, all or any portion of a franchise for failure of the facility operator to comply with any applicable provision of the *Lee County Solid Waste Ordinance*.

Assessment:

Lee County's updated solid waste ordinance provides greater local control and stronger enforcement powers than have been historically available. As a result, ordinance violations have been abated more often without the need of court action saving time and money.

Costs associated with code enforcement activities are absorbed through the County's solid waste program. However, court costs involved with legal action and costs incurred

by the County relative to any court ordered cleanups are reimbursed to the County by the person(s) found to be in violation of the ordinance.

Intended Actions:

Lee County does not have any plans to change its illegal disposal policies and procedures at this time. However, it will continue to evaluate them and make any changes that may be necessary to prevent or abate ordinance violations.

City of Sanford

Current Program:

City of Sanford ordinances prohibit illegal dumping. Reports of illegal dumping are forwarded to the code enforcement office of the Community Development Department for action.

Assessment:

The City of Sanford's current program for dealing with illegal disposal of solid waste has been effective.

Intended Actions:

No changes in current program are planned.

Town of Broadway

Current Program:

The Town of Broadway investigates all complaints of illegal dumping and takes appropriate remedial action.

Assessment:

The Town of Broadway's current program for dealing with illegal disposal of solid waste has been effective.

Intended Actions:

No changes in current program are planned.

Litter Control

Unincorporated Areas

Current Program:

Over the past year, approximately 44 tons of litter, excluding tires and white goods, was cleaned up from the planning area's roads. Roadside litter is picked up primarily by prison inmates in coordination with the North Carolina Department of Transportation. Lee County utilizes individuals performing community service when available and county crews when necessary to cleanup tires, white goods and nuisance sites needing immediate attention. In the past, Lee County has used inmate labor for large cleanup projects and will continue to do so when necessary. Tire and white good cleanups are funded by revenue received by the County through advanced disposal fees levied by the State of North Carolina.



Litter control on the grounds of the County's public buildings, parks and public recreational facilities is the responsibility of the Solid Waste Division. The County has dedicated two part time employees to regularly monitor these areas, pickup litter, and empty trash cans and recycling containers. This operation cost the County \$35,059 during fiscal year 2008-09.

In addition to its regular litter control operations Lee County participates in the following programs in an effort to control litter throughout the planning area:

Adopt-A-Highway Program

In an effort to curb litter along the state's highways, the North Carolina Department of Transportation administers the Adopt-A-Highway Program. Since 1988, this program has encouraged individuals, businesses and civic organizations to voluntarily "adopt" a 2 mile stretch of highway. Volunteers make a 4 year commitment to clean their "adopted" highway of litter 4 times a year. 29 groups have "adopted" 55 miles highways throughout the planning area. Their efforts have resulted in an estimated 2+ tons of litter being properly disposed of annually.



Litter Sweep



Twice a year the North Carolina Department of Transportation sponsors a statewide litter cleanup drive known as Litter Sweep. Many organizations throughout the planning area schedule their Adopt-A-Highway cleanups to coincide with Litter Sweep.

NC Big Sweep

2009 marks the 10th consecutive year that Lee County Solid Waste will partner with NC Big Sweep in their efforts to make North Carolina's watersheds litter-free. On the first Saturday of October volunteers including Lee County employees, members of the Deep River Park and the Deep River Associations, local Scout Troops and numerous individuals get wet and dirty, pulling tires and other trash out of the areas waters. In 2008, 60 volunteers collected more than 1 ton of trash from an estimated 10 miles of river banks, streams and trails throughout the planning area.



Assessment:

Lack of resources has limited the County's efforts at developing a planned anti-litter campaign. However, greater enforcement powers under the new *Lee County Solid Waste Ordinance* and other litter control efforts outlined above have resulted in a 4% reduction in roadside litter.

Intended Actions:

The planning area will continue its current litter control programs.

City of Sanford

Current Program:

The City of Sanford uses inmate labor daily to collect litter in its streets and highways. From August 2008 through February, 2009 crews collected 20,917 lbs. of trash along the streets at a cost of \$0.89/lb. or a total cost of \$18,664.58.

Assessment:

The City of Sanford's current program for dealing with litter has been effective.

Intended Actions:

No changes in current program are planned.

K. PURCHASING RECYCLED PRODUCTS ELEMENT

Unincorporated Areas

Lee County Government

Current Program:

Lee County Government does not have a formal policy governing the purchase of products with recycled content. Departments are encouraged to purchase environmentally preferable products when economically practicable.

Assessment:

The decentralization of purchasing within Lee County Government makes it difficult to track current purchasing of products with recycled content. However, past practice has shown that Lee County is committed to environmentally responsible purchasing practices. This commitment is illustrated in TABLE K-1.

**TABLE K-1: Summary of Recycled Content Purchases
by Lee County Government**

PRODUCT	% OF TOTAL PURCHASES OF SPECIFIC ITEM
Office, Copier & Computer Paper	96%
General Office Supplies*	32%
Janitorial Supplies**	87%

SOURCE: Lee County Records

*General office supplies includes ink jet & toner cartridges, file folders, storage boxes, report covers, index tabs & dividers, memo pads, post-it notes, and envelopes.

**Janitorial supplies include bathroom tissue, roll paper towels, and multi-fold towels.

In addition to countywide use of the products summarized in TABLE K-1, the General Services Department uses recapped tires where applicable and continues to evaluate the possible use of re-refined oil, and recycled antifreeze. The Solid Waste Division is evaluating the feasibility of using alternative fuels, including bio-diesel, in its trash collection trucks and other equipment.

Lee County General Services Department has also implemented green practices in its repair and renovation jobs. These have included the purchase and use of low voc paints and adhesives, plastic lumber for repairing tables and benches in the parks and carpet containing recycled content. 581 sq. yds. of LEED certified carpet containing recycled content was recently replaced in the Lee County Sheriff's Office at a cost of \$ 29,500. This carpet not only contains recycled content, but will be removed and recycled by the manufacturer after it has served its useful purpose. The County also plans to replace 995sq. yds. of carpet in its main Library during FY 2009-10 at a cost of \$36,433. The Library carpet, tiles rather than one continuous piece will also contain recycled content and is guaranteed not to be landfilled when recycled through its manufacturer.

Intended Actions:

Lee County does not intend to take any formal actions regarding the purchasing of recycled products at this time. However, it's Waste Reduction and Recycling Committee continues to investigate and promote ways that county government can increase its purchase and use of environmentally preferable products.

Central Carolina Community College and Lee County Schools

The Lee County campus of Central Carolina Community College (CCCC) and Lee County's public schools are required by General Statute 143-58.2(a) *to the extent economically practicable, purchase and use, or require the purchase and use of products with recycled content.* Purchases of products with recycled content by the planning area's educational facilities are summarized in TABLE K-2

TABLE K-2: Summary of Environmental Preferable Purchasing by Educational Facilities

RECYCLED CONTENT PRODUCT	ANNUAL EXPENDITURE
Spent on print order vendors using recycled content	\$31,893.00
Office Papers & envelopes	\$39,665.00
Towel, tissue, and related products	\$21,338.00
Misc. paper products	\$14,338.00
Remanufactured laser printer toner cartridges	\$43,952.00
Desk Jet toner cartridges	\$ 9,246.00
Office Supplies	\$ 2,297.00
Recycle bins or other plastic waste containers	\$21,506.00
Recapped tires	\$72,901.00
Compost and mulch products	\$45,603.00
TOTAL	\$302,739.00

Source: CCCC and Lee County Schools Purchasing Reports

City of Sanford

Current Program and Assessment:

The City of Sanford does not have a formal policy governing the purchase of products with recycled content. Paper with recycled content is purchased and the purchase of other recycled products is encouraged when economically practicable.

Intended Actions:

The City of Sanford does not intend to take any formal actions regarding the purchasing of recycled products during this planning period.

Town of Broadway

Current Program and Assessment:

The Town of Broadway does not have a formal policy governing the purchase of products with recycled content. The purchase of recycled products is encouraged when economically practicable.

Intended Actions:

The Town of Broadway does not intend to take any formal actions regarding the purchasing of recycled products during this planning period.

L. DISASTER RESPONSE ELEMENT

Current Program:

The planning area's response to the management of debris generated as the result of a natural disaster is clearly addressed in the *Lee County Emergency Operations Plan*. The Debris Management section of this plan is included in Appendix G.

Assessment:

The planning area's response to past natural disasters (Hurricane Fran, 1996) has been effective in mitigating the threat to the health, safety and welfare of its citizen's. This includes the resolution of issues regarding the removal and disposition of disaster debris.

Intended Actions:

- The Debris Management section of the *Lee County Emergency Operations Plan* is being reviewed and updated where necessary to meet current conditions.
- The planning area has identified four (4) sites to be used for managing disaster debris: Lee County's Resource Management Facility (formerly C&D Debris Landfill), the City of Sanford Compost Facility, an open area located at the City of Sanford's Wastewater Treatment Plant, and an open area at the Town of Broadway's Wastewater Treatment Plant. The County currently working to identify additional debris management sites to be used if necessary.
- Sample contracts for the reduction and/or removal of disaster debris have been developed and a list of potential contractors has been compiled. These documents are included in Appendix G and will be reviewed and updated as necessary.

M. DISASTER RESPONSE ELEMENT ADDENDUM

In the event of an outbreak of any foreign animal disease including bird flu, the Lee County Planning Area will fall under the direction of the North Carolina Department of Agriculture & Consumer Services (NCDA&CS). Animal mortalities will be managed according to NCDA&CS protocol.

N. COLLECTION OF DISCARDED COMPUTER EQUIPMENT AND TELEVISIONS ELEMENT

Discarded Computer Equipment

Current Program:



In July, 2000 Lee County became the first county in North Carolina to offer its residents a better way to manage their electronic waste. Residents of the County's unincorporated areas can bring their old computers, copiers and fax machines to any of the six staffed convenience centers at no extra charge. Residents of the City of Sanford, Town of Broadway, local businesses and schools can bring these items to the central staging area at the Lee County

Resource Management Facility (formerly the C&D Landfill) for a small fee to cover management costs.

46 tons of electronics including monitors, CPUs, mouse devices, printers, scanners, fax machines, copiers and cords were transported to Synergy Recycling, LLC in Mayodan, NC during FY 2009-10. This program costs the county \$.01/lb and is funded through annual solid waste fees and fees charged to non-unincorporated residents.

Assessment:

The County has found this program to be the most efficient and cost effective method of managing discarded computer equipment at this time.

Intended Actions:

Lee County will continue its current discarded computer equipment and electronics management program and will continue to monitor additional opportunities. Additional items will be added to the program as circumstances become economically practicable.

Televisions

Historically, Lee County has worked in cooperation with local electronic repair outlets to remove televisions, stereo equipment, VCRs and microwaves from the waste stream. One local vendor, TV Clinic, inspects the items collected through the convenience centers and accepts those that are in working condition or can be repaired. This service is provided at no cost to the County.

Assessment:

The County has found this program to be the most efficient and cost effective method of managing discarded televisions at this time.

Intended Actions:

On January 1, 2010, Lee County will add discarded televisions as defined in G.S. 130A-309.91 to its discarded computer equipment and electronics management program.

O. MANAGEMENT OF ABANDONED MANUFACTURED HOMES ELEMENT

Lee County has considered whether to implement a program for the management of abandoned manufactured homes and due to lack of resources has decided not to do so at this time. The County will, however, revisit this issue in the fall of 2010 to evaluate the economic practicality of the implementation of said plan during FY 2010-11.

PART V. SOLID WASTE COSTS AND FINANCING METHODS IN THE PLANNING AREA

Unincorporated Areas:

Program Costs

The solid waste program for Lee County's unincorporated areas cost \$1,164,806.65 in FY 2007-08. As summarized in Table IV-1, it cost the County \$407,125.67 to collect approximately 6,239 tons of solid waste from the six (6) convenience centers, public schools and County government buildings. The disposal of waste at the Waste Management transfer station, disposal of waste tires at Central Carolina Tire and the County's C&D landfill cost \$536,164.40¹.

Waste reduction, recycling and reuse, and mulching programs were provided for \$221,516.58. As specified previously, these programs include convenience center recycling programs, institutional cardboard recycling (public schools, County buildings), and pallet/yard waste mulching. These programs accounted for the diversion of 3,039 tons from the waste stream.

Table IV-1: County Operated Solid Waste Program Costs, FY 2007-08

	COLLECTION	DISPOSAL	WASTE REDUCTION, RECYCLING AND REUSE	COMPOSTING & MULCHING	TOTAL
PROGRAM COSTS	\$407,125.67	\$536,164.40	\$180,441.57	\$41,075.01	\$1,164,806.65
COST PER TON	\$65.26	\$43.27	\$87.59	\$41.96	\$75.48

Source: Lee County Solid Waste Records

Financing Methods

Lee County operates its solid waste program as an enterprise system. This structure has worked well for the County and provides the resources necessary to cover the costs associated with solid waste. Revenues are generated by household fees, waste collection fees, c&d landfill tipping fees, tire & white goods tax disbursements, the sale of recyclables, and grant awards. A solid waste reserve fund is used to pay for equipment purchases and capital improvements. The County's financing methods for FY 2004-05 are summarized in Table IV-2.

¹ Beginning in FY 2008-09, the cost to Lee County for solid waste disposal will not include the operation of the C&D Landfill which closed on June 30, 2008.

Table IV-2: County Financing Methods

FUNDING SOURCE	% OF PROGRAM
Household Fees	68%
Collection Fees	11%
Reserve Fund/Interest	10%
White Goods/Tire/Excise Tax	8%
Grant Awards	1%
Sale of Recyclables	1%
Brush/Yard Debris Tipping Fees	1%
TOTAL	100%

Source: Lee County Solid Waste Records

City of Sanford:

Program Costs

Waste Management of the Carolinas, Inc. handles solid waste collection and disposal for 8,650 households within the City of Sanford. The City of Sanford's Solid Waste Division crews collect and dispose of bulk trash, leaves and limbs. The costs associated with the City's solid waste program are summarized in Table IV-3.

Table IV-3: City of Sanford Operated Solid Waste Program Costs, FY 2007-08

	COLLECTION & DISPOSAL	BULK TRASH	WASTE REDUCTION, RECYCLING AND REUSE	COMPOSTING & MULCHING	TOTAL
PROGRAM COSTS	\$1,232,614.00	\$293,078	Included in collection costs	\$566,180.00	\$2,091,872.00
COST PER TON	\$145.44	\$216.00		\$99.10	
COST PER HOUSEHOLD	\$142.50	\$33.88		\$65.45	

Source: City of Sanford Solid Waste Records

Financing Methods

The current solid waste program is funded by the City's general fund, a per solid waste user fee of \$100.00/household and revenue from the sale of compost. These funds are apportioned as follows:

Table IV-4: City of Sanford Financing Methods

FUNDING SOURCES	% OF PROGRAM
Property Taxes	55%
Solid Waste Fees	43%
Compost Revenue	2%
TOTAL	100%

Source: City of Sanford Solid Waste Records

Town of Broadway:

The Town of Broadway's solid waste program cost for FY 2007-08 was \$70,306.00. This cost covered the collection and disposal of solid waste per their contract with Waste Management. 100% of the financing of the solid waste program was generated by ad valorem taxes.

Table IV-5: Town of Broadway Solid Waste Program Costs, FY 2007-08

	COLLECTION	DISPOSAL	WASTE REDUCTION, RECYCLING AND REUSE	COMPOSTING & MULCHING	TOTAL
PROGRAM COSTS	\$68,070.00	\$1,236.00	NA	\$1,000.00	\$70,306.00
COST PER TON	\$122.00	\$38.63		\$28.58	
COST PER HOUSEHOLD	\$111.05	\$2.02		\$1.64	\$314.69

Source: Town of Broadway Solid Waste Records